

WHAT IS CLAIMED IS:

1. A transfer member comprising: a polyimide resin and a carbon black, wherein:

the carbon black has a pH value of no more than 5 and a volatile component of at least 3.5 wt%; and

the content of the carbon black comprises 22 to 30 parts by weight relative to 100 parts by weight of the polyimide resin.

2. A transfer member according to claim 1, wherein the transfer member has a surface resistivity of $1 \times 10^8 \Omega/\square$ to $1 \times 10^{15} \Omega/\square$.

3. A transfer member according to claim 1, wherein the transfer member has a volume resistivity of $1 \times 10^6 \Omega \cdot \text{cm}$ to $1 \times 10^{13} \Omega \cdot \text{cm}$.

4. A transfer member according to claim 1, wherein the average particle diameter of the carbon black is no more than 500 nm.

5. A method of producing a transfer member comprising:

dividing a poly(amic acid) resin solution containing

carbon black into plural portions;

mixing the divided solutions by allowing the solutions to collide with each other at a pressure of at least 150 MPa; and

forming a transfer member containing the polyimide resin using the poly(amic acid) resin solution, which has the carbon black mixed therein.

6. A method for manufacturing the transfer member according to claim 5, wherein the mixing comprises:

applying the respective divided solutions to each upstream side of plural flow path tubes that converge so as to be connected with each other at a connection portion at a downstream side of the flow path tubes;

allowing the respective divided solutions to flow through the flow path tubes under a pressure of at least 150 MPa; and

allowing the respective solutions which have flowed through the flow path tubes to collide with each other at the connection portion of the flow path tubes.

7. A method for manufacturing the transfer member according to claim 6, wherein a minimum cross sectional area of the connection portion of plural flow path tubes is no more than 0.07 mm^2 .

8. A method for manufacturing the transfer member according to claim 5, wherein the mixing step further comprises dividing the solution into plural portions after the collision.

9. A method for manufacturing the transfer member according to claim 8, wherein the mixing step comprises:

applying the respective divided solutions to respective upstream sides of plural first flow passage tubes that converge so as to be connected at a connection portion at a downstream side of the flow paths;

allowing the respective divided solutions to flow through the first flow path tubes under a pressure of at least 150 MPa;

allowing the solutions which have flowed through the respective flow path tubes to collide with each other at the connection portion of the first flow path tubes; and

dividing the solution after the collision into plural portions by allowing the solutions to flow into plural second flow path tubes that diverge from the connection portion of the first flow path tubes.

10. A method for manufacturing the transfer member according to claim 8, wherein collision among the divided

solutions and re-division of the solution after the collision are repeated plural times in the mixing step.

11. A method for manufacturing the transfer member according to claim 5, further comprising filtering the mixed solution using a filter after the mixing step.

12. A method for manufacturing the transfer member according to claim 5, wherein the divided solutions are allowed to collide with each other at a pressure of 150 to 250 Mpa in the mixing step.

13. A method for manufacturing the transfer member according to claim 5, wherein the divided solutions are allowed to collide with each other at a pressure of 180 to 220 Mpa in the mixing step.

14. An image forming apparatus comprising a transfer member containing a polyimide resin and carbon black,

the carbon black having a pH value of no more than 5 and a volatile component of at least 3.5%,

the content of the carbon black being 22 to 30 parts by weight relative to 100 parts by weight of the polyimide resin.

15. An image forming apparatus according to claim 14, wherein the transfer member has a surface resistivity of $1 \times 10^8 \Omega/\square$ to $1 \times 10^{15} \Omega/\square$.

16. An image forming apparatus according to claim 14, wherein the transfer member has a volume resistivity of $1 \times 10^6 \Omega \cdot \text{cm}$ to $1 \times 10^{13} \Omega \cdot \text{cm}$.

17. An image forming apparatus according to claim 14, wherein the mean particle diameter of the carbon black is no more than 500 nm.